

REMARKS

Claims 22-42 were presented for examination and all claims were rejected. Claims 22-42 are currently pending, of which claims 22 and 33 are independent. Applicants submit that claims 22-42 are patentable and in condition for allowance.

The following comments address all stated grounds of rejection. Applicants respectfully traverse all rejections and urge the Examiner to withdraw the finality of the rejections and pass the claims to allowance in view of the remarks set forth below.

CLAIM REJECTIONS UNDER 35 U.S.C. §112

I. Claims 22, 26, 27, 33, 36 and 37 Rejected Under 35 U.S.C. §112, Second Paragraph

Claims 22, 26, 27, 33, 36 and 37 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite. Applicants traverse this rejection and submit that these claims particularly point out and distinctly claim the subject matter of the current invention.

The Examiner contends that claims 22 and 33 lack a transitional step from determining the current response time to identifying the client as on-hold. Specifically, the Examiner states that it is unclear “how after the determination of the current response time, how the transitional step leads the client as identified as on-hold.” (Office Action, page 3). Applicants respectfully direct the Examiner to paragraphs 44-45 of the present disclosure which describe that the interface unit determines that the server response time exceeds a threshold and puts the client on-hold. In light of the specification, Applicants submit that that this claim limitation is understood by one of ordinary skill in the art. Thus, Applicants submit that this claim limitation particularly points out and distinctly claims the subject matter of the current invention.

The Examiner also suggests that it is unclear “whether the current response time must exceed the threshold to consider identifying the client as on-hold” in claims 22 and 33 (Office Action, page 3). Applicants direct the Examiner’s attention to paragraph 44 of the present disclosure, which explains that “if the response time *is greater than* the threshold value,” then the client gets put on-hold. As such, Applicants submit that this claim limitation particularly points out and distinctly claims the subject matter of the current invention.

The Examiner further contends that the term “a code” is indefinite in claims 26, 27, 36 and 37 and interprets this term as “information informing the client the status of the web server.” Applicants respectfully disagree with this interpretation, and direct the Examiner to paragraph 49 of the present disclosure, which notes that a code may be “a Java Applet/Script or other code (implemented by any browser programming language).” Thus, “a code” in claims 26, 27, 36 and 37 should be read as an executable code. This is consistent with the language of these claims, which recite the code executing various functionality.

In light of the above arguments, Applicants submit that claims 22, 26, 27, 33, 36 and 37 are clear and definite as written. Accordingly, Applicants respectfully request the Examiner to withdraw the rejection of claims 22, 26, 27, 33, 36 and 37 under 35 U.S.C. §112, second paragraph.

CLAIM REJECTIONS UNDER 35 U.S.C. §102

II. Claims 22, 24-26, 28-29, 31, 33, 35-36, 38-39 and 41 Rejected as Anticipated by Abbott

Claims 22, 24-26, 28-29, 31, 33, 35-36, 38-39 and 41 were rejected as anticipated by U.S. Patent No. 6,314,463 to Abbott *et al.* (“Abbott”), under 35 U.S.C. §102(e). Claims 22 and 33 are independent claims. Claims 24-26, 28-29 and 31 depend on and incorporate all of the patentable subject matter of independent claim 22. Claims 35-36, 38-39 and 41 depend on and incorporate

all of the patentable subject matter of independent claim 33. Applicants traverse this rejection and submit that Abbott fails to disclose each and every element of the claimed invention.

A. Independent Claims 22 and 33 Not Anticipated by Abbott

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. Claims 22 and 33 recite a method and system, respectively, for putting a client on hold. These claims recite an interface unit (i) identifying a client as on-hold responsive to a server response time exceeding a threshold, (ii) establishing a waiting time for the client, and (iii) transmitting an on-hold request to an on-hold server based upon the waiting time. Abbott fails to disclose each and every element of the claimed invention.

First, Abbott fails to disclose an interface unit (i) identifying a client as on-hold responsive to a server response time exceeding a threshold. Abbott describes a load balancing system for a plurality of servers (Abbott, Abstract). If a server response time exceeds a threshold, Abbott simply redirects the client to another server. If there are no servers available, Abbott simply returns a sorry page or a 503 error. Neither of these are the same as identifying a client as on-hold, because in either case, Abbott's client's request is satisfied – either Abbott's client is redirected to another server, or Abbott's client receives a response indicating no servers are available. Thus, at no point is Abbott's client on hold.

Second, Abbott fails to disclose an interface unit (ii) establishing a waiting time for the client. The Examiner cites Abbott's figure 5 and related text, which describe determining what part of a *server's* total processing time is spent queued and what part is spent processing. This is not the same as a waiting time *for the client*, which is described at least in paragraphs 48 and 54 of the present disclosure.

Third, Abbott fails to disclose an interface unit (iii) transmitting an on-hold request to an on-hold server based on the waiting time. As discussed above, Abbott merely describes load balancing. First, if another server is available, Abbott's client's request is redirected to the alternate server. Even if Abbott's alternate server is read as an on-hold server, Abbott's client's *original* request is redirected, not a new on-hold request. Nor is Abbott's client's request based on a waiting time, because Abbott's client was not waiting when it generated the request. Second, if another server isn't available, Abbott's client's request is forwarded to a web page indicating no servers are available. Again, this is the *original* request, and is neither a new on-hold request nor is it based on the waiting time.

Because Abbott fails to disclose each and every element of the claimed invention, Applicants submit that claims 22 and 33 are patentable and in condition for allowance. Claims 24-26, 28-29 and 31 depend on and incorporate all of the patentable subject matter of independent claim 22. Claims 35-36, 38-39 and 41 depend on and incorporate all of the patentable subject matter of independent claim 33. Therefore, Applicants submit that claims 24-26, 28-29, 31, 35-36, 38-39 and 41 are also patentable and in condition for allowance. Accordingly, Applicants respectfully request the Examiner to reconsider and withdraw the rejection of claims 22, 24-26, 27-29, 31, 33, 35-36, 38-39 and 41 under 35 U.S.C. §102.

CLAIM REJECTIONS UNDER 35 U.S.C. §103

III. Claims 23, 27, 30, 32, 34, 37, 40 and 42 Rejected under 35 U.S.C. §103(a)

Dependent claims 27, 30, 32, 37, 40 and 42 were rejected as unpatentable over Abbott in view of U.S. Patent No. 6,820,260 to Flockhart *et al.* ("Flockhart") under 35 U.S.C. §103(a). Dependent claims 23 and 34 were rejected as unpatentable over Abbott in view of U.S. Patent No. 6,317,775 to Colie *et al.* ("Colie") under 35 U.S.C. §103(a). Applicants traverse these

rejections and submit that Abbott, Flockhart and Colie, alone or in combination, fail to teach or suggest each and every element of the claimed invention.

A. Dependent Claims 23, 27, 30, 32, 34, 37, 40 and 42 Patentable over Abbott, Flockhart and Colie

As discussed above, Applicants submit that independent claims 22 and 33 are patentable and in condition for allowance. Claims 23, 27, 30 and 32 depend on and incorporate all of the patentable subject matter of independent claim 22. Claims 34, 37, 40 and 42 depend on and incorporate all of the patentable subject matter of independent claim 33. Therefore, Applicants submit that dependent claims 23, 27, 30, 32, 34, 37, 40 and 42 are also patentable and in condition for allowance.

Furthermore, as discussed above, Abbott fails to teach or suggest an interface unit (i) identifying a client as on-hold responsive to a server response time exceeding a threshold, (ii) establishing a waiting time for the client, and (iii) transmitting an on-hold request to an on-hold server based upon the waiting time.

The Examiner cites Flockhart to describe a code provided to the client receiving a preferred wait time or on-hold preference from a user of the client. The Examiner also cites Flockhart to describe identifying a plurality of web pages with different content according to different wait times. The Examiner further cites Flockhart to describe taking a client off-hold responsive to an agent becoming available. However, Flockhart fails to teach or suggest identifying a client as on-hold responsive to a server response time exceeding a threshold, establishing a waiting time for the client, and transmitting an on-hold request to an on-hold server based upon the waiting time.

The Examiner cites Colie to describe response time estimated from a recurrence relation. Applicants disagree that Colie describes this feature. Claims 23 and 34 of the present disclosure provide the relation

$$t'_{(i+1)} = \frac{(i-1)t_{(i-1)} + it_i}{2i-1} + (t'_i - t_i)K$$

where t_i denotes the response time at the i^{th} episode, t'_i denotes the estimated response time at the i^{th} episode, and K is a constant of error correction learned from ongoing traffic.

Colie describes calculating a predicted responsiveness according to the formula

$$PR = NC * R - f(t_{current} - t_{agestamp})$$

where PR is the predicted responsiveness, NC is the number of connections, R is the ratio of the time interval I measured for the server response to the number of connections NC (see Colie, col. 15, lines 46-49), and $f(t_{current} - t_{agestamp})$ is an aging function equal to the difference between the current time and an age stamp which corresponds to the time when the last measurement of a response time for the server was made, divided by 4 (see Coli, col. 15, line 66 – col. 16, line 2).

Thus, because $R = I/NC$, then NC cancels out and Colie's equation is equal to

$$PR = I - \frac{(t_{current} - t_{agestamp})}{4}$$

First, the Examiner notes that under the condition $i=1$, Applicants' formula is equal to $t'_{(2)} = t_1 + (t'_1 - t_1)K$, or that the estimated response time at episode 2 is equal to the response time at episode 1, plus an error correct constant multiplied by the difference between the estimated response time and actual response time at episode 1. The Examiner further notes that if $K=0$, then that the estimated response time at episode 2 is equal to the response time at episode 1.

Second, the Examiner turns to Colie's equation and suggests that "if the aging difference is a negative value of one, the predicted response time is the previous response time." This is incorrect for two reasons. First, if the aging difference is a negative value of 1, then $PR = I + 1/4$. Only if the aging difference is zero could Colie's $PR = I$. Second, Colie's aging difference could never be a negative value of one, unless time is flowing backwards such that the current timestamp is *less* than a previous timestamp. If, on the other hand, Colie's aging difference is zero so that $PR = I$, then the current timestamp is *equal* to the previous timestamp, and time has stopped. Neither situation makes sense.

Furthermore, to argue that Colie teaches Applicants' equation, then the same facts must be assumed. The Examiner assumes that Applicants' formula is in the condition of $i=1$, or the first episode. If Colie is *also* at episode 1, then Colie has no previous timestamp, and

$(t_{current} - t_{agestamp}) = (t_{current})$, and $PR = I - \frac{(t_{current})}{4}$. This is not equal to Applicant's formula,

even under the assumed conditions of $i=1$ and $K=0$. Essentially, Colie's formula uses a *variable* time difference between the current time and the time when the response time was last measured (Colie, col. 16, lines 3-6), while Applicants' formula uses constant time intervals between episodes.

Additionally, Colie, like Flockhart and Abbott, fails to teach or suggest identifying a client as on-hold responsive to a server response time exceeding a threshold, establishing a waiting time for the client, and transmitting an on-hold request to an on-hold server based upon the waiting time.

Because Abbott, Flockhart and Colie,, alone or in combination, fail to teach or suggest each and every feature of the claimed invention, Applicants submit that these references fail to detract from the patentability of independent claims 22 and 33 and dependent claims 23, 27, 30,

32, 34, 37, 40 and 42. Therefore, Applicants respectfully request the Examiner to withdraw the rejection of dependent claims 23, 27, 30, 32, 34, 37, 40 and 42 under 35 U.S.C. §103.

CONCLUSION

In light of the aforementioned arguments, Applicants contend that each of the Examiner's rejections have been adequately addressed and all of the pending claims are in condition for allowance. Accordingly, Applicants respectfully request reconsideration and withdrawal of finality of the rejections, and allowance of all of the pending claims.

Should the Examiner feel that a telephone conference with Applicants' agent would expedite prosecution of this application, the Examiner is urged to contact the Applicants' agent at the telephone number identified below.

Respectfully submitted,

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